

1 CLAIMS

2 1. An isolated cloned human gene having at least in
3 part the following nucleotide sequence:

4 GTCTACATGGGTGCTTCCCATTCCAGGGGATGAGCTACCTGGAGGATGTGCGGCTCG
5 TACACAGGGACTTGGCGGCTCGGAACGTGCTGGTCAAGAGTCCCAACCATGTCAAAA
6 TTACAGACTTCGGGCTGGCTCGGCTGCTGGACATTGACGAGACAGAGTACCATGCAG
7 ATGGGGGCAAGGTTAGGTGAAGGACCAAGGAGCAGAGGAGGCTGGGTGGAGTGGTGTG
8 TAGCCCATGGGAGAACTCTGAGTGGCCACCTCCCCACAACACACAGTTGGAGGACTT
9 CCTCTTCTGCCCTCCCAGGTGCCCATCAAGTGGATGGCGCTGGAGTCCATTCTCCGC
10 CGGCGGTTACCCACCAGAGTGATGTGTGGAGTTATGGTGTGTGATGGGGGGTGTG
11 GGAGGGGTGGGTGAGGAGCCATGG---

12 wherein A, T, C and G represent adenine, thymine,
13 cytosine and guanine nucleotides, respectively.

14 2. The gene of Claim 1 having the characteristics
15 of ATCC deposit number 53408.

16 3. Nucleic acid probes having specific binding
17 affinity for at least a part of the gene of Claim 1 or
18 for a nucleic acid derivative thereof.

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1 4. A polypeptide having at least in part the
2 following amino acid sequence:

3 GlyMetSerTyrLeuGluAspValArgLeuValHisArgAspLeuAlaAlaArgAsn
4 ValLeuValLysSerProAsnHisValLysIleThrAspPheGlyLeuAlaArgLeu
5 LeuAspIleAspGluThrGluTyrHisAlaAspGlyGlyLysValProIleLysTrp
6 MetAlaLeuGluSerIleLeuArgArgArgPheThrHisGlnSerAspValTrpSer
7 TyrGly---.

8 5. Antibody having specific binding affinity for at
9 least a portion of the polypeptide of Claim 4.

10 6. A test kit for detecting genetic abnormalities
11 related to the gene of Claim 1 in humans comprising
12 containers containing specific nucleic acid probes of
13 Claim 3 and instructions for performing test with said
14 probes.

15 7. Antibody reagent kit for detecting the
16 polypeptide of Claim 4 comprising containers containing
17 antibodies of Claim 5, immunological reagents and
18 instructions for using the kit.

19 8. A method of diagnosing human cancer related to
20 the gene of Claim 1 comprising:

1 (a) detecting amplification rearrangement or
2 over-expression of the gene of Claim 1 by hybridizing
3 nucleic acid derived from a tissue sample of a human
4 suspected of said cancer with the nucleic acid probes of
5 Claim 3; or

6 (b) detecting abnormal expression of the protein
7 product of the gene of Claim 1 by reacting a body sample
8 of a human suspected of said cancer with antibodies of
9 Claim 5.

10 9. A method of inhibiting malignancy caused by
11 erb-B related gene comprising reacting protein produced
12 by said gene with antibody having specific binding
13 affinity for said protein.

14 10. The method of Claim 9 wherein said antibody is
15 conjugated with a toxic agent.

11. Cell lines exhibiting defined amounts of DNA, RNA or
protein specific for the v-erbB related gene of claim 1.

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WUK 10/1/87

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a1
add
p1
add
p1

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E4

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75

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G5

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L2